

AMENDMENTS TO THE CLAIMSLISTING OF CLAIMS

This listing of Claims will replace all prior versions, and listings, of Claims in the application:

Claim 1. (Currently Amended) A transmission apparatus for converting digital data into a packet and transmitting said packet-converted digital data, said transmission apparatus comprising:

inserting means for inserting random data having an arbitrary data length into a part of said packet-converted digital data to be transmitted;

encryption means for encrypting said packet-converted digital data including said random data having said arbitrary data length inserted by said insertion means; and

transmission means for transmitting said digital data encrypted by said encryption means.

Claim 2. (Previously Presented) The transmission apparatus according to Claim 1, wherein said transmission means transmits said encrypted digital data by radio or wire communication.

Claim 3. (Previously Presented) The transmission apparatus according to Claim 1, wherein said transmission means transmits said encrypted digital data as data to be recorded onto a

recording medium.

Claim 4. (Previously Presented) The transmission apparatus according to Claim 1, wherein said insertion means inserts said random data into an invalid-data portion existing in said packet.

Claim 5. (Previously Presented) The transmission apparatus according to Claim 1, wherein a length of an encryption unit encrypted by said encryption means is smaller than a length of said packet-converted digital data.

Claim 6. (Previously Presented) The transmission apparatus according to Claim 5, wherein said insertion means inserts said random data into said encryption unit.

Claim 7. (Currently Amended) A reception apparatus for receiving encrypted digital data that has been converted into packets, including random data having an arbitrary data length within said packets of said encrypted digital data, said reception apparatus comprising:

reception means for receiving said encrypted packet-converted digital data;

decryption means for decrypting said encrypted packet-converted digital data received by said reception means;  
and

elimination means for removing said random data having said arbitrary data length from said packet-converted digital data obtained as a result of decryption carried out by said decryption means.

Claim 8. (Previously Presented) The reception apparatus according to Claim 7, wherein said reception means receives said encrypted digital data by radio or wire communication.

Claim 9. (Previously Presented) The reception apparatus according to Claim 7, wherein said reception means receives said encrypted digital data recorded on a recording medium.

Claim 10. (Previously Presented) The reception apparatus according to Claim 7, wherein said elimination means removes said random data by removing an invalid-data portion existing within said packets.

Claim 11. (Previously Presented) The reception apparatus according to Claim 7, wherein a length of a decryption unit decrypted by said decryption means is smaller than a length of said packet-converted digital data.

Claim 12. (Previously Presented) The reception apparatus according to Claim 11, wherein said elimination means removes

said random data from said decryption unit.

Claim 13 (Currently Amended). A transmission method for converting digital data into a packet and transmitting said packet-converted digital data, said transmission method comprising the steps of:

inserting random data having an arbitrary data length into a part of said packet-converted digital data to be transmitted;

encrypting said packet-converted digital data including said inserted random data having said arbitrary data length; and

transmitting said encrypted digital data.

Claim 14. (Previously Presented) The transmission method according to Claim 13, wherein a length of an encryption unit to be encrypted is smaller than a length of said packet-converted digital data and said random data is inserted into said encryption unit.

Claim 15. (Currently Amended) A reception method for receiving encrypted digital data that has been converted into packets including random data having an arbitrary data length within packets of said encrypted digital data, said reception method comprising the steps of:

receiving encrypted packet-converted digital data;

decrypting said received encrypted packet-converted digital

data; and

removing said random data having said arbitrary data length from said packet-converted digital data obtained as a result of decrypting said received encrypted packet-converted digital data.

Claim 16. (Previously Presented) The reception method according to Claim 15, wherein a length of a decryption unit to be decrypted is smaller than a length of said packet-converted digital data and said random data removed from said decryption unit.

Claim 17. (Currently Amended) A transmission apparatus for encrypting a program comprising a continuous data stream and transmitting said encrypted program, said transmission apparatus comprising:

random-data-generating means for generating random data having an arbitrary data length;

addition means for adding said random data having said arbitrary data length generated by said random-data-generating means to a beginning and an end of said program;

encryption-processing means for encrypting said program including said random data having said arbitrary data length added thereto by said addition means; and

transmission means for transmitting said program encrypted by said encryption-processing means.

Claim 18. (Previously Presented) The transmission apparatus according to Claim 17, wherein said transmission means transmits said encrypted digital data by radio or wire communication.

Claim 19. (Previously Presented) The transmission apparatus according to Claim 17, wherein said transmission means transmits said encrypted digital data as data to be recorded onto a recording medium.

Claim 20. (Canceled)

Claim 21. (Currently Amended) A reception apparatus for receiving an encrypted program comprising a continuous data stream, said reception apparatus comprising:

reception means for receiving said encrypted program comprising said continuous data stream;

decryption means for decrypting said encrypted program comprising said continuous data stream received by said reception means; and

elimination means for removing random data having an arbitrary data length from a beginning and an end of a program obtained as a result of said decryption carried out by said decryption means.

Claim 22. (Previously Presented) The reception apparatus according to Claim 21, wherein said reception means receives said encrypted digital data by radio or wire communication.

Claim 23. (Previously Presented) The reception apparatus according to Claim 21, wherein said reception means receives said encrypted digital data recorded on a recording medium.

Claim 24. (Canceled)

Claim 25. (Currently Amended) A transmission method for encrypting a program comprising a continuous data stream and transmitting said encrypted program, said transmission method comprising the steps of:

generating random data having an arbitrary data length;

adding said generated random data having said arbitrary data length to a beginning and an end of said program;

encrypting said program including said added random data having said arbitrary data length; and

transmitting said encrypted program.

Claim 26. (Currently Amended) A reception method for receiving an encrypted program comprising a continuous data stream, said reception method comprising the steps of:

receiving said encrypted program comprising said continuous

data stream;

decrypting said received encrypted program comprising said continuous data stream; and

removing random data having an arbitrary data length from a beginning and an end of a program obtained as a result of decrypting said received encrypted program.

Claim 27. (Currently Amended) A transmission apparatus for encrypting a plurality of data blocks comprising main data and additional data and transmitting said encrypted data blocks, said transmission apparatus comprising:

additional-data-inserting means for carrying out processing to insert additional data into data blocks randomly selected from among a sequence of said data blocks composing a stream of said main data;

encryption means for encrypting said sequence of data blocks after said processing carried out by said additional-data-inserting means to insert said additional data; and

transmission means for transmitting said sequence of data blocks encrypted by said encryption means; and

random-data-inserting means for carrying out processing to insert random data having an arbitrary data length into selected ones of said data blocks, wherein

said encryption means encrypts said sequence of data blocks



after said processing carried out by said additional-data-inserting means to insert said additional data and said processing carried out by said random-data-inserting means to insert said random data having said arbitrary data length.

Claims 28-30. (Canceled)

Claim 31. (Currently Amended) The transmission apparatus according to Claim ~~28~~ 27, wherein said random-data-inserting means inserts random data into an invalid-data portion within each said selected ones of said data blocks.

Claim 32. (Previously Presented) The transmission apparatus according to Claim 27, wherein said transmission means transmits said sequence of data blocks by radio or wire communication.

Claim 33. (Previously Presented) The transmission apparatus according to Claim 27, wherein said transmission means transmits said sequence of data blocks as data to be recorded onto a recording medium.

Claim 34. (Currently Amended) A transmission method for encrypting a plurality of data blocks comprising main data and additional data and transmitting said encrypted data blocks, said

transmission method comprising the steps of:

carrying out processing to insert additional data into data blocks randomly selected from among a sequence of said data blocks composing a stream of said main data;

encrypting said sequence of data blocks after said processing to insert additional data; ~~and~~

transmitting said sequence of encrypted data blocks; and  
processing to insert random data having an arbitrary data length into selected ones of said data blocks, wherein said sequence of data blocks is encrypted after said step of processing to insert said additional data and said step of processing to insert said random data having said arbitrary data length.

Claim 35. (Canceled)

Claim 36. (Currently Amended) A recording medium for recording at least an encrypted program, wherein before being recorded onto said recording medium, said program is encrypted after random data having an arbitrary data length is added to a beginning and/or an end of said program.

Claim 37. (Currently Amended) A recording medium for recording packet-converted and encrypted digital data, wherein before being recorded into said recording medium, said

packet-converted data is encrypted after random data having an arbitrary data length is added to part of said packet-converted data.

Claim 38. (Currently Amended) A recording medium for recording a plurality of encrypted data blocks comprising main data and additional data, wherein before being recorded into said recording medium, said plurality of encrypted data blocks are obtained by inserting additional data into selected ones of said data blocks randomly selected from among a sequence of said data blocks composing a stream of said main data and by encrypting said data blocks selected from said sequence of said data blocks including said additional data, wherein after said additional data is added, random data having an arbitrary data length is inserted into some of said data blocks of said sequence of said data blocks before encrypting said data blocks selected from said sequence of data blocks including said random data having said arbitrary data length.

Claims 39-41. (Canceled)